

didate items. The survey was administered via the web in two rounds. **RESULTS:** 29 reporting items were identified from the literature and reduced to 25 following review by the Working Group. A total of 48 individuals agreed to participate in the Delphi panel, of whom 46 (96%) and 39 (85%) responded to the first and second rounds, respectively. The 25 items were reduced to 23 following the first round of the survey, and all 23 items were rated as important with no evidence of disagreement on ratings of any items in the second round. For each item, we summarise the recommendation, provide a detailed explanation and illustrate it using an exemplar of good reporting practice identified from the published literature. **CONCLUSIONS:** There was good agreement for the final set of items included in the checklist. It is anticipated that the MAPS statement will promote clarity, transparency and completeness of reporting of mapping studies. It is targeted at researchers developing mapping algorithms, peer reviewers and editors involved in the manuscript review process for mapping studies, and the funders of the research.

## PRM189

## TRANSLATION AND LINGUISTIC VALIDATION OF THE CAREGIVER QUALITY OF LIFE CYSTIC FIBROSIS SCALE (CQOLCF) AND THE MULTIDIMENSIONAL SCALE OF PERCEIVED SOCIAL SUPPORT (MSPSS) FOR USE IN GERMANY AND THE UNITED KINGDOM (UK)

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**OBJECTIVES:** Cystic fibrosis (CF) imposes a considerable humanistic and socio-economic burden on caregivers. CQOLCF scale is a 35-item, disease-specific self-report instrument used to evaluate physical/emotional/family/social functioning of caregiver of a child with CF. MSPSS is a 12-item, generic instrument used to evaluate perceptions of social support. This study aimed to translate and linguistically validate the CQOLCF and the MSPSS into German for Germany, and to review and linguistically validate the same measures into English for the UK. **METHODS:** The original US-English versions of the CQOLCF and MSPSS were translated into German and UK-English complying with ISPOR's Principles of Good Practice for translation and linguistic validation of PRO measures. Methodology for the German versions of the CQOLCF and the MSPSS included: concept elaboration, forward translation by two native German speakers, reconciliation, two independent back translations, back translation review, review by original instrument developer, independent proofreading, pilot testing with five caregivers of children with CF in Germany, pilot testing review, investigator proofreading, and final quality assurance checks. Methodology for the UK-English versions included: concept elaboration, in-country review, review by original instrument developer, independent proofreading, pilot testing with five caregivers of children with CF in the UK, pilot testing review, investigator proofreading, and final quality assurance checks. **RESULTS:** Following pilot testing, minor changes were made to two items in the German (instructions: referring to 'carer'; item 15: referring to 'mental strain') and UK-English versions (item 5: referring to 'personal interests'; item 13: referring to 'limiting my focus') of the CQOLCF and one item (addition of the word 'please' to instructions) in the MSPSS UK-English version. **CONCLUSIONS:** The German and UK-English versions of the CQOLCF and the MSPSS were found appropriate for use among caregivers of pediatric patients with CF and were certified as true and accurate translations of the original source documents.

## PRM190

## ASSESSING OUTCOMES FOR COST-UTILITY ANALYSES IN MENTAL HEALTH INTERVENTIONS: COMPARISON OF MULTI-ATTRIBUTE UTILITY INSTRUMENT EQ-5D WITH MENTAL HEALTH SPECIFIC OUTCOMES GHQ12

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**OBJECTIVES:** Many intervention based studies aiming to improve mental health do not include a multi-attribute utility instrument (MAUI) that produces quality-adjusted life-years (QALYs). It limits the applicability of health economic analyses and means that the validity of comparability of cost-effectiveness between different interventions is diminished. The aim of this study is to assess the relationship between commonly used measures for psychological distress General Health Questionnaire (GHQ-12) and MAUI EuroQoL (EQ-5D), and develop 'crosswalk' transformation algorithms between the measures. **METHODS:** The study is based on a postal survey questionnaire sent to a random sample of men and women in four counties in central part of Sweden, from 16–84 years old in 2012. The study population included 32,500 respondents. EQ-5D index was calculated using Swedish tariffs values. The survey included both GHQ12 and EQ-5D instruments, as well as questing about self-rated health. An OLS model was used to estimate EQ-5D health states values using GHQ-12 as exposure, using the respondents of two counties (n=17,000). The algorithm was applied to the respondents from another two counties, (n=15,500) to check the predictive capacity of the model. **RESULTS:** EQ-5D index scores decreased as the GHQ-12 scores increased. The final model included sex, age, self-rated health in 5 ordinal levels and GHQ-12 scores as a quantitative variable. The regression equation explained 40% of the variance. For estimation of utility scores, the model showed a satisfying predictive capacity between observed and predicted EQ-5D index score with Pearson correlation = 0.65, MAE (mean absolute error) = 0.12 and mean relative absolute error (MAE/mean(absolute EQ-5D)) = 14.6%. **CONCLUSIONS:** The algorithms developed in this study can be used to determine cost-effectiveness of services or interventions that use GHQ12 as a primary outcome where utility measures are not collected.

## PRM191

## HAPPINESS EFFECTS ON HEALTH-STATE VALUATIONS

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**OBJECTIVES:** Emotions have an effect on economic choices and financial valuations. The aim of this study is to determine whether happiness has an effect on

health-states valuations. **METHODS:** A battery of standard measures of happiness was applied to 110 economics students at Universidad Nacional de Colombia: global happiness, affect equilibrium, life satisfaction, Gallup's happiness ladder, Diener's life satisfaction, Liubomirsky's subjective happiness scale, and satisfaction in particular areas. Participants performed a Visual Analog Scale valuation of five EQ-5D health states: one severe, two mild and two medium. Health states were described generically. Only better-than-death valuations were taken into account. Individuals valuing a state as worse than death were excluded from that state. **RESULTS:** The total number of valid observations for each health state fell between 100 and 110, with the exception of the severe state (62). Results were different depending on health-state and test. Gallup's ladder and life satisfaction tests were not correlated with any valuation. A medium health state was not correlated to any happiness test. Severe states were more correlated to emotions than milder states. "Not very happy" people in the Global happiness test had lower valuations for a mild state ( $\rho = -0.224$ ,  $p < 0.10$ ). Positive affects were negatively correlated with valuations. ( $\rho = -0.306$ ,  $-0.252$ ,  $p < 0.05$ ,  $p < 0.10$ ,  $\rho = 0.335$ ,  $p < 0.05$ ,  $\rho = -0.282$ ,  $p < 0.05$ ). Negative affects increased valuations of a medium and a mild states ( $\rho = 0.25$ ,  $0.313$ ,  $p < 0.10$ ). Satisfaction in particular areas of life also had an impact on extreme states. **CONCLUSIONS:** Some states, but not all, seem to be more easily affected by emotional variables. The results suggest that more severe health states are valued higher when the respondent has had negative affects, and lower when she has had positive affects.

## PRM192

## QUALITATIVE EQUIVALENCE BETWEEN PAPER AND EDIARY VERSIONS AND USABILITY OF 6 PRO QUESTIONNAIRES FOR ENDOMETRIOSIS

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**OBJECTIVES:** This study evaluated the qualitative equivalence between paper and electronic diary (eDiary) versions of the following 6 patient-reported outcome (PRO) instruments used in endometriosis studies: Dysmenorrhea (DYS), Non-menstrual Pelvic Pain (NMPP), Dyspareunia, Uterine Bleeding, Numeric Rating Scale (NRS), and Menstrual Period. Study medication and Analgesic Medication questions were also assessed for usability. Equivalence evaluation of these questionnaires in an eDiary was needed to document suitability of this mode of data collection for upcoming clinical trials. **METHODS:** A cross-sectional qualitative study was conducted involving cognitive and usability interviews with premenopausal women diagnosed with endometriosis recruited from 2 US sites. The 6 symptom questionnaires and 2 medication questionnaires were administered on an HTC HD2 eDiary and paper versions. Participants were randomized to order of mode completion to control for order effects. Interviews were conducted in two rounds to allow for evaluation of issues between rounds. **RESULTS:** Mean age of the sample (N=10) was 31 years, (range 25–46), 70% were white; 50% were employed part-time; 50% had completed secondary school or some college, while 50% had completed a college degree. Participants found the training useful, device easy to use, considered the platforms and formats to be similar, and preferred the eDiary to paper. No usability issues were noted in the PRO or medication questions, although one participant suggested a larger device would be easier for some participants to read. Only one instance of a discrepancy in response between the formats occurred, and was due to perceived similarity between the adjacent responses Mild and Moderate, not due to the device. No changes were made between rounds. **CONCLUSIONS:** The study showed excellent qualitative equivalence between paper and electronic versions of 6 PRO questionnaires. This study also supported usability of the eDiary with an endometriosis population which expressed a strong preference for the electronic version.

## PRM193

## MAPPING OF THE 16-ITEM SORT FORM VERSION OF THE MENOPAUSE CERVANTES HEALTH-RELATED-QUALITY-OF-LIFE SCALE ONTO THE EQ-5D-3L

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**OBJECTIVES:** The Cervantes scale is a specific health-related-quality-of-life (HRQoL) questionnaire developed in Spanish women through and beyond menopause. The 16-item form (Cervantes-SF) is structured in 6 dimensions: Vasomotor Symptoms, Health, Psychological Health, Aging, Sexuality, and Couple Relations. The aim of this work was to obtain a scoring algorithm for mapping the specific Cervantes-SF scores onto the generic EuroQoL-5D-3L (EQ-5D) for peri-menopausal and postmenopausal women. **METHODS:** We designed a cross-sectional study enrolling peri and oostmenopausal adult women attending outpatient clinics of Gynecology all over the country in Spain. All of the patients completed both scales, the Cervantes-SF and the EQ-5D-3L. Several mapping methods were tested to predict EQ-5D utility values: Piecewise regression based on item decomposition into dummy indicators, Piecewise regression with profile aggregated data and Probit regression. R<sup>2</sup>, Mean Absolute Error, Mean Average Percentual Error (MAPE), along with coefficient significance were used to compare models. Age, body mass index (BMI) and being sexually active were also variables tested within models. **RESULTS:** A sample of 275 women [mean age 55 years old (SD=5.37)] was enrolled, with mean BMI=25.2 (SD=4.3) and 83% being sexually active. Most important dimensions were Aging, Health, Psychological health, and the interaction term for severity and BMI. Piecewise regression with profile aggregated data performed best although differences between models were small. Goodness-of-fit statistics were good or very good: R<sup>2</sup>=0.52, MAE=0.019, MPE=-0.1%, MAPE=12% and RMSE=0.126. **CONCLUSIONS:** An algorithm for mapping menopause specific health states measured by the abridged 16-item Cervantes scale (Cervantes-SF) onto general HRQoL utilities has been obtained, allowing computing QALYs related to menopause impairment.

## PRM194

## AVOIDING ANYTHING 'ABNORMAL' IN THE TRANSLATION OF 'USUALLY'

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